REMARKS

Applicants submit this Amendment in reply to the Office Action mailed September 8, 2005. By this Amendment, Applicants have amended the specification at paragraph 44. Claims 1-12 remain pending in this application.

On page 2 of the Office Action, the drawings were objected to for including a reference number not mentioned in the description. Applicants have amended the specification to mention the reference number in the description. Accordingly, Applicants respectfully request withdrawal of the objection to the drawings.

In the Office Action, claims 1-5 and 7-8 were rejected under 35 U.S.C. § 102(e) as being anticipated by Jelley et al. Claims 6 and 10-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jelley in view of Talbott and claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jelley in view of applicants assertions. Applicants respectfully traverse these rejections for the reasons provided below.

Jelley discloses a method for predicting an operating characteristic of a rotary earth boring bit design through the use of a numeric algorithm formed by a neural network. The accuracy of the prediction is tested by comparing actual test data and operating conditions of the designed bit with predicted operating characteristics from the neural network. If the predicted results closely match the test results, then the neural network is considered to be properly trained. See, for example, paragraph nos. 20, 21, and 62 of Jelley.

Jelley does not disclose or suggest each and every aspect of independent claim 1. For example, Jelley fails to disclose or suggest, among other things, establishing a

model development machine having a first at least one model to predict a machine parameter, establishing at least one test machine having a second at least one model to predict the machine parameter, comparing the data from the at least one test machine to corresponding data of the model development machine, and updating at least one of an estimator and a model of each at least one test machine in response to variations in the compared data. Jelly only discloses a single model to predict a machine parameter, and thus cannot disclose the model development machine and test machine each having a model to predict a machine parameter as recited in claim 1. Further, Jelley, with only one neural network cannot disclose or suggest updating at least one of an estimator and a model of a test machine in response to variations in compared data including data from a model development machine.

For at least the above reason, Applicants submit that Jelley fails to disclose or suggest each of the aspects recited in independent claim 1. Accordingly, Applicants request that the rejection of independent claim 1, along with dependent claims 2-5, be withdrawn.

For similar reasons presented above, Jelley does not disclose or suggest, for example, delivering a neural network model from a model development machine to a test machine and updating at least one of an estimator and neural network model on the test machine in response to variations in a computed parameter and estimated parameter, as recited in independent claim 7. Accordingly, Applicants request that the rejection of independent claim 7, along with dependent claim 8 be withdrawn.

Again for similar reasons set forth above with respect to independent claim 1, Jelley fails to disclose or suggest each of the aspects recited in independent claim 10.

For example, Jelley fails to disclose or suggest compensating for variations in modeled parameters in a plurality of machines having similar characteristics, including updating at least one of an estimator and a model of each machine, as required by independent claim 10. As noted above, Jelley only disclose a single neural network, and thus does not disclose or suggest updating a plurality of machines.

Talbott does not cure this deficiency in Jelley noted above with respect to independent claim 10 or dependent claim 6. Accordingly, Applicants respectfully request the 35 U.S.C. § 103(a) rejection of claims 6 and 10 be withdrawn, as well as the rejection of dependent claims 11 and 12.

In addition, Applicants alleged assertions referenced on pages 8 and 9 of the outstanding Office Action do not cure the deficiencies noted above with respect to independent claim 7. Accordingly, Applicants respectfully request the 35 U.S.C. § 103(a) rejection of claim 9 be withdrawn.

The Office Action contains characterizations of the claims and the related art with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.
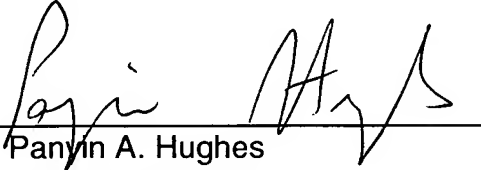
In discussing the specification, claims, and drawings in this Amendment, it is to be understood that Applicants are in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification or abstract and/or shown in the drawings. Rather, Applicants are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Please grant any extensions of time required to enter this Amendment and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: January 9, 2006

By: _____
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